

**Abstract**

A separator for an electrochemical cell, comprising (A) a flexible perforate support, (B) a porous first ceramic material which fills the perforations in the support and which (i) has a pore structure which is characterized by an average pore size, and (ii) is suitable for receiving an ion-conducting electrolyte, wherein (C) the electrolyte-contactable pore surface of the first porous ceramic material is covered with fine particles of a further material to extend the use life, the average size of the fine particles being in the range from 0.5 to 30% and preferably in the range from 1 to 15% of the average pore size of the ceramic material.